

Waterwise gardens

As a garden owner, it is important to understand how your garden's water needs vary, and how to make sure your garden thrives without making too many demands on your mains water supply.

Watering

While all gardens need water to survive, careful planning and good gardening habits can reduce your garden's water needs.

The amount of water your garden needs depends on many factors, including:

- ◆ plant variety
- ◆ height and maturity of plants
- ◆ density of planting
- ◆ soil type, depth and drainage
- ◆ slope of the garden
- ◆ presence of shade
- ◆ exposure to wind
- ◆ rainfall amount, frequency and seasonality.

Thorough but infrequent watering encourages plants to develop deep root systems, giving them inbuilt drought protection.

Don't over-water, as waterlogged soil supports bacteria and fungi, which cause disease to plants. Wilting or leaf curling on your plants or lawns indicates that it's time to water.

Be aware of water restrictions for your area, and water only as restrictions allow.

Understanding your soil

The amount of water your soil can hold is influenced by your soil type. Whatever your soil type, adding more organic matter will boost its water-holding capacity and applying wetting agents may help your soil to absorb water.

Clay soils are rich in nutrients and hold water well. However, they are also prone to compaction and waterlogging.

To break up clay soils, apply 500 grams of gypsum or dolomite per square metre and dig this in well. This improves soil structure and the availability of water and nutrients.

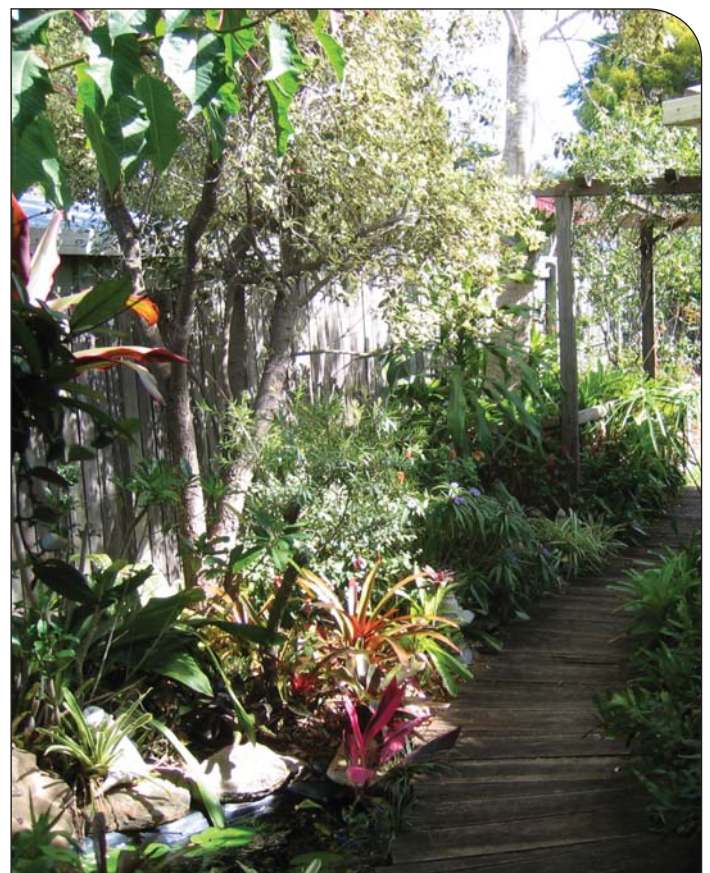
Sandy soils have a low capacity to hold moisture and nutrients. However, they are well-aerated and easy to cultivate.

When the soil is moist but not wet, dig to loosen the top 300 mm and add plenty of organic matter such as compost, mulch or manure and dig in well. You will need to add more organic matter on a regular basis.

Loam is the best soil for growing plants. The term 'loam' covers all soil types in between sandy and clay soils.

Loams can be improved and maintained by adding organic matter such as compost, mulch and manure on a regular basis.

Tip for all soil types: At least once each year, dig in plenty of organic material such as compost or manure. After you have added organic matter, add a layer of organic mulch. This will gradually break down and improve the soil structure. Replenish the mulch layer regularly to maintain an appropriate thickness.



Composting

Compost is one of the most effective materials for feeding soil and improving structure.

It enriches the earth by helping to absorb and hold water.

It also diverts your green waste back into the garden rather than into a landfill site.



Tip: Compost works best if you have a balanced mix of nitrogen-rich materials (e.g. vegetable scraps) with carbon-rich materials (e.g. dry leaves).

Mulch

Mulch increases water penetration, improves soil fertility and structure, reduces weed growth and protects soil against erosion.

It also minimises soil surface evaporation and moderates extremes in soil temperatures.

How to use mulch

1. Prepare the soil by removing weeds, raking or digging the surface, and watering those plants you wish to keep.
2. Place a layer of newspaper over the soil to further deter weed growth. Do not make this too thick as it will reduce air supply to the soil.
3. Apply the mulch.

The ideal depth depends on the particle size of the mulch material. If using large chunks, such as pine bark, you will need a deeper layer—more than 5cm. Fine particles such as sawdust are more prone to compaction, and should be used more sparingly—around 2cm deep.

Choosing plants

There are many native and exotic plants which look great and thrive in low-moisture environments. To find water-efficient plants suited to your local area use the Waterwise Plant Selector <www.derm.qld.gov.au/waterwise/plantselector>. Look for the following features when choosing new plants for your garden.

- ◆ Small leaves—small, tough leaves (especially if their shape is rounded or needle-like) have a reduced surface area, which means they lose less water through transpiration.
- ◆ Light leaf colours—light green, blue-green or grey-green foliage reflects light, keeping the leaf cooler and reducing transpiration.
- ◆ Hairy leaves—hairs surround the plant pores and act like a windbreak, slowing down air movement over the pores and reducing moisture loss.
- ◆ Tough surface—tough, hard or waxy leaf surfaces lose less water to the atmosphere.
- ◆ Strong internal structure—a strong structure resists wilting. This ensures the plant can survive extended periods of heat stress.



Tough, hard or waxy leaf surfaces lose less water to the atmosphere.

More information

Other water-efficient gardening information is available at <www.derm.qld.gov.au/waterwise> or from your local council or distributor-retailer.